

WE CLAIM:

1. A label applicator, comprising:

a support surface;

the support surface having a central area; and

a post assembly extending up from the central area such that a label having a label through-hole can be positioned in a support position generally on the support surface with the post assembly extending up through the label through-hole and an adhesive face of the label facing up and such that an article having an article through-hole can be positioned over the post assembly so that a flat surface of the article can be pressed and guided against the adhesive face of the positioned label.

2. The applicator of claim 1 wherein the support area curves down from the central area in both longitudinal directions.

3. The applicator of claim 2 wherein the support area curves down from the central area in both lateral directions.

4. The applicator of claim 1 wherein the support area curves down from the central area in both lateral directions.

5. The applicator of claim 1 wherein the support area curves downwardly in opposite directions from the post assembly when the support area is in a rest position and is pushed downwardly to a flatter orientation during a label application procedure.

6. The applicator of claim 5 wherein the support area is pushed to the flatter orientation by a user pressing the article down against the label when in the support position.

7. The applicator of claim 5 further comprising a spring which biases the support area from the flatter orientation to the rest position.

8. The applicator of claim 7 wherein the spring includes at least one leaf spring operatively connected to the support area.

9. The applicator of claim 8 wherein the at least one leaf spring includes a pair of leaf springs.

10. The applicator of claim 7 further comprising a flexible curved body member having an upper surface defining the support area and a curved lower surface, and the at least one leaf spring being attached to the curved lower surface.

11. The applicator of claim 7 further comprising at least one clip for holding the at least one leaf spring to the curved lower surface.

12. The applicator of claim 7 wherein the at least one leaf spring includes a single leaf spring having an opening positioned beneath the post assembly.

13. The applicator of claim 7 wherein the spring includes the support area being held by a curved plastic body member formed by a structural or engineered plastic having a spring action.

14. The applicator of claim 1 wherein the support area includes a layer of foam on a body member.

15. The applicator of claim 14 wherein the body member is return-flexible downwardly against the pressure of a user pressing the article against the label.

16. The applicator of claim 1 wherein the support area is on an upper surface of a body member, and further comprising at least one peg extending up from the body member to engage a label in the support position.

17. The applicator of claim 16 wherein the label includes a round label and a tab extending out from the round label, and at least one peg engages the tab with the label in the support position.

18. The applicator of claim 17 wherein the at least one peg includes a pair of pegs which engage the tab on opposite sides thereof.

19. The applicator of claim 17 wherein the tab defines a first tab, the label includes a second tab extending out from the round label on an opposite side of the first tab, and the at least one peg includes a first pair of pegs engaging the first tab on

opposite sides thereof and a second pair of pegs engaging the second tab on opposite sides thereof.

20. The applicator of claim 1 wherein the post assembly at the central area has a post diameter, and the post diameter corresponds to a diameter of a small central hole in a CD disc whereby the post assembly itself centers such a disc.

21. The applicator of claim 20 wherein the small central hole diameter is approximately .656 inch.

22. The applicator of claim 21 further comprising engagement structure positionable relative to the support surface and spaced outwardly from the post assembly to position labels having central holes substantially larger than the post diameter.

23. The applicator of claim 22 wherein the substantially larger central holes have diameters of approximately 1.625 inches.

24. The applicator of claim 22 wherein the engagement structure comprises a plurality of posts extendible up from the support surface about the post assembly.

25. The applicator of claim 1 further comprising a support body member which supports the support surface, and a plurality of pins extendible up from the body member about the post assembly to define a centering system for centering labels having holes larger than a base diameter of the post assembly about the post assembly in the support position.

26. The applicator of claim 24 wherein the pins are positionable between raised positions wherein upper ends thereof are above the support surface and lowered positions wherein the upper ends are generally below the support surface.

27. The applicator of claim 26 wherein the pins are connected together such that they move together between the raised and lowered positions.

28. The applicator of claim 27 further comprising a plate disposed below the support surface and to which the pins are connected.

29. The applicator of claim 28 further comprising a post connected to the plate for lifting and lowering the pins.

30. The applicator of claim 29 wherein the post extends up through the post assembly and includes a knob at an upper end thereof for moving the posts and thereby the pins to a raised operative position.

31. The applicator of claim 26 further comprising a pull-up knob for moving the pins between the raised and lowered positions.

32. The applicator of claim 28 further comprising guide posts extending down from the body member and guiding the up and down movement of the plate.

33. The applicator of claim 32 wherein the plate includes side edge indents in which the guide posts are positioned.

34. The applicator of claim 1 wherein the post assembly includes upright flexible tabs attached at upper and lower ends thereof and having a rest position wherein portions thereof extend outwardly relative to a vertical axis of the post assembly and define stops for holding the article in a rest position on the post assembly spaced above a label in the support position and are flexible inwardly upon downward pressure against the article to allow the article to be pressed down against a label in the support position.

35. The applicator of claim 1 further comprising a body member on which the support surface is disposed, the support surface being downwardly curving relative to the post assembly, the body member having a lower surface, a stop member extending down from the lower surface and having a lower end, the lower end being spaced above a support surface of the body member with the body member in a rest position and engaging the support surface when the body member is in a pressed down position during a label application procedure.

36. The applicator of claim 35 further comprising a spring connected to the body member and biasing the body member up from the pressed down position to the rest position.

37. The applicator of claim 36 wherein the spring comprises a leaf spring which is connected at ends thereof to the body member lower surface.

38. The applicator of claim 36 further comprising a pair of clips which connect the spring to the body member.

39. The applicator of claim 38 further comprising the body member including a locator pin which is positioned in a hole in the leaf spring.

40. The applicator of claim 36 further comprising the body member including a lower surface rib which guides the leaf spring.

41. The applicator of claim 1 further comprising a body member on which the support surface is disposed, the body member being compressible between a rest position wherein the support surface is convex and a pressed-down label application position wherein the support surface is substantially flat.

42. The applicator of claim 41 wherein the body member and the post assembly are integrally formed together.

43. The applicator of claim 41 wherein the body member is returned by spring action from the label application position to the rest position.

44. The applicator of claim 41 wherein at least one stop member extending down from a lower surface of the body member is constructed to engage a support surface of the applicator to define the pressed-down label application position.

45. The applicator of claim 44 wherein the at least one stop member includes a stop post and a stop fin.

46. The applicator of claim 41 wherein the body member has opposing ends which spread out relative to one another as the body member is pressed down from the rest position to the label application position.

47. The applicator of claim 41 further comprising a large-hole label locator assembly positionable by a user between an operative position generally above the support surface and radially outward from the post assembly and an inoperative position.

48. The applicator of claim 47 wherein the inoperative position is generally below the support surface.

49. The applicator of claim 47 wherein the locator assembly includes a post extending through the post assembly and movable by a user to move the locator assembly between the operative and inoperative positions.

50. The applicator of claim 41 wherein the body member when in the rest position has a footprint having a width of approximately 5.25 inches and a length of approximately 8.125 inches, and has a height of approximately 2.875 inches.

51. The applicator of claim 50 wherein the body member when in the label application position has a footprint having a width of approximately 5.25 inches and a length of approximately 9.125 inches, and has a height of approximately 1.5 inches.

52. The applicator of claim 41 wherein the body member is compressed down approximately 1.375 inches from the rest position to the label application position.

53. The applicator of claim 41 wherein the body member is constructed of polypropylene, polyethylene or other flexible plastic compound.

54. The applicator of claim 41 wherein the support surface includes a foam pad adhered to a top surface of the body member.

55. The applicator of claim 1 further comprising a body member which supports the post assembly, the body member having an arched configuration from generally one end to the other end.

56. The applicator of claim 1 wherein the post assembly is fixed relative to the central area.

57. The applicator of claim 1 wherein the article is a CD.

58. The applicator of claim 1 wherein the article is a DVD.

59. The applicator of claim 1 wherein the article is a disc.

60. An applicator for applying a label having a label hole to a substantially flat article having an article hole, comprising:

a label support surface movable from a convex shape to a flatter shape;

a post assembly extending up from the label support surface;

the post assembly having cross-sectional dimensions such that the label hole can be positioned over the post top and the label mount down towards the label support surface to a label deposit position; and

the cross-sectional dimensions allowing the substantially flat article to be placed over the post top with the post top passing through the article hole and the article pressed down against the label with the label in the label deposit position and applying pressure against the surface causing the surface to move from the convex shape to the flatter shape and the label thereby applied to the article.

61. A label applicator assembly, comprising:

a label support surface;

a flat-article locator assembly extending up from the surface; and

a pin for locating at least in part a label on the surface while a flat article is being pressed down relative to the locator assembly to an application position on an adhesive face of the label.

62. The assembly of claim 61 wherein the pin is positioned to engage a side of a tab of a label positioned on the surface.

63. The assembly of claim 62 wherein the pin engages in a side edge notch of the tab.

64. The assembly of claim 63 wherein the pin defines a first pin, and further comprising a second pin spaced from the first pin for engaging another side edge notch of the tab.

65. The assembly of claim 61 wherein the surface extends downwardly about the entire perimeter of the locator assembly.

66. A label applicator assembly, comprising:

a label support surface;

a flat-article locator assembly extending up from the surface;

the surface extending generally downwardly from and about the periphery of the locator assembly; and

the locator assembly defining an initial flat-article rest position for a flat article and an applicator position wherein the flat article is pressed down against a label on the label support surface.

67. An application method, comprising:

providing a label sheet having an adhesive label thereon, the label having a central hole;

peeling the label from the sheet; and

positioning the peeled label on a downwardly curved applicator surface of a label applicator with an adhesive side of the label being upwardly disposed.

68. The method of claim 67 wherein the label applicator has a post assembly extending up from the curved applicator surface, and the positioning includes positioning the label with the post assembly extending up through the central hole.

69. The method of claim 68 wherein the central hole has a size and shape corresponding to that of the post assembly such that the post assembly locates and at least in substantial part holds the label in position on the curved applicator surface.

70. The method of claim 68 wherein the central hole is larger than a base of the post assembly, wherein the label applicator includes at least one structural member extendible up from the curved applicator surface in an operative position, spaced outwardly from the post assembly, and the positioning includes positioning the removed label such that the at least one structural member locates and holds the label in position on the curved applicator surface.

71. The method of claim 70 further comprising lifting the at least one structural member up from a position generally below the curved applicator surface to the operative position.

72. The method of claim 71 wherein the lifting includes lifting a knob extending up from the post assembly.

73. The method of claim 67 wherein the label applicator includes a positioning pin extending up relative to the curved applicator surface, and the positioning includes positioning the label such that the positioning pin helps to position the label on the curved applicator surface.

74. The method of claim 73 wherein the label includes a side notch, and the positioning includes positioning the positioning pin in the side notch.

75. The method of claim 74 wherein the label includes an outwardly extending tab and the side notch is in the tab.

76. The method of claim 67 further comprising pressing a flat object down against the positioned label to adhere the label to the flat object.

77. The method of claim 76 wherein the pressing causes the curved applicator surface to flatten out.

78. The method of claim 77 wherein the label is applied to the flat object progressively from a center of the flat object outwardly towards edges thereof.

79. The method of claim 77 wherein after the pressing, the curved applicator surface returns via spring action from a flattened out condition to a normal convex curved condition.

80. The method of claim 76 wherein the flat object is an optical disc.

81. An application method, comprising:

providing a label applicator having a label support surface and a plurality of pins positioned relative to the surface; and

positioning a label on the support surface such that the label at least partially engages and is held in place by the pins during a label application process, wherein the label has side notches which engage the pins.

82. The method of claim 81 wherein the label has at least one tab and the notches are in side edges of the at least one tab.

83. A label applicator, comprising:

a label support surface having a central area; and

a post assembly extending up from the central area such that a label having a label through-hole can be positioned in a support position generally on the support surface with the post assembly extending up through the label through-hole and an adhesive face of the label facing up, such that an article having an article through-hole can be positioned over the post assembly so that a flat surface of the article can be pressed and guided against the adhesive face of the positioned label.

84. The label applicator of claim 83, wherein the support surface curves down in both longitudinal directions and in both lateral directions.

85. The label applicator of claim 83, wherein the post assembly includes a spindle movable within the post assembly, the spindle including at least one ridge for initially positioning the article on the post assembly.

86. The label applicator of claim 83, wherein the post assembly includes a spindle having a knob end and movable within the post assembly, the knob end including a plurality of ridges for initially positioning the article on the post assembly.

87. The label applicator of claim 83, wherein the post assembly includes an article support portion positioned beneath the support surface, the article support portion including a pair of pegs capable of extending through openings in the support surface to support the article placed on the post assembly, the article support portion being coupled to the post assembly to prevent separation from the applicator when an article is pushed down on the post assembly.

88. The label applicator of claim 83, wherein the post assembly includes an article support portion positioned beneath the support surface, the article support portion including a pair of curved pegs extending through openings in the support surface to support the article placed on the post assembly and for catching the post

assembly to prevent separation from the applicator when an article is pushed down on the post assembly.

89. The label applicator of claim 83, wherein the post assembly includes a compressible material for supporting an article placed on the post assembly.

90. The label applicator of claim 89, wherein the compressible material is foam.

91. The label applicator of claim 83, wherein the post assembly includes an article support portion and a spring portion positioned beneath the support surface, the article support portion including a pair of pegs capable of extending through openings in the support surface to support the article placed on the post assembly, and the spring portion positioned to prevent separation of the article support portion from the post assembly when the article is pushed down on the post assembly, such that the spring portion, in a biased position, maintains the article support portion in a raised position above the support surface when the article is not pushed down on the post assembly.

92. The label applicator of claim 83, wherein the post assembly includes a spindle having a post and a knob coupled to an end of the post, the spindle being movable within the post assembly by pushing down on the knob and by pulling up on the knob.

93. The label applicator of claim 83, further comprising at least one spring positioned under the support surface, the spring biasing the support surface in a downwardly curved position.

94. The label applicator of claim 83, wherein the post assembly includes a spindle positioned under the support surface and supported by a spring assembly including a flat spring and a coiled spring, the flat spring holding the coiled spring against the spindle and biasing the spindle in a raised position such that at least a portion of the spindle extends through the support surface.

95. The label applicator of claim 83, wherein the post assembly includes a spindle, a base portion, and at least one flexible locator piece coupled to the base portion and having an end positioned in a groove on the spindle, the end of the at least

one flexible locator piece having an edge extending slightly away from the spindle to receive the article being positioned on the post assembly, wherein when the edge receives the article, the at least one flexible locator piece moves down and away from the spindle as the article is pushed down on the post assembly.

96. The label applicator of claim 83, wherein the post assembly includes a spindle having a plurality of grooves and a base portion having a plurality of extensions perpendicularly positioned relative to the base portion, the spindle being positionable on the base portion by aligning the plurality of grooves with the plurality of extensions such that the spindle snaps into the base portion and is secured by the extensions.

97. The label applicator of claim 96, wherein as the article is placed on the spindle and pushed down, the extensions compress inward into the plurality of grooves, allowing the article to be positioned on the support surface.

98. The label applicator of claim 83, wherein the post assembly includes a base portion, a tiered portion, and a spindle, the tiered portion capable of retracting into the base portion when the article positioned on the post assembly contacts an upper surface of the tiered portion and is pushed down.

99. The label applicator of claim 83, wherein the support surface is substantially flat and includes a textured material, a foam pad for supporting a label placed thereon, and a pair of edges having gradual depressions forming feet at each of the pair of edges.

100. The label applicator of claim 99, further comprising at least one spring positioned under the support surface, the spring biasing the support surface in a downwardly curved position.

101. The label applicator of claim 100, wherein the post assembly includes a spindle and a base portion, the spindle and base portion being positioned on a top of the support surface.

102. The label applicator of claim 101, wherein the base portion is retractable into the support surface when an article positioned on the post assembly contacts an upper surface of the base portion and is pushed down.

103. The label applicator of claim 83, wherein the support surface includes a plurality of flaps each coupled at one end to a spindle of the post assembly, wherein the flaps include foam portions between the flaps and the spindle at locations away from the coupled end, the flaps being compressible against the spindle when an article is positioned on the spindle and pushed down.

104. The label applicator of claim 103, further comprising a pair of surface flaps coupled to the support surface and having an opening at substantially parallel positions relative to the support surface, wherein the surface flaps each include a foam portion at the opening, the surface flaps being compressible against the support surface when the article is positioned on the spindle and pushed down against the support surface.

105. The label applicator of claim 83, wherein the post assembly includes a locator portion having a plurality of posts extending from under the support surface through a plurality of holes, the plurality of posts being tapered to restrict the movement of the plurality of posts through the plurality of holes as the article is positioned on the plurality of posts and pushed down.

106. The label applicator of claim 105, wherein the plurality of posts are capable of passing entirely through the plurality of holes to separate from the support surface as the article is pushed down on the plurality of posts, the post assembly being storeable under the support surface when separated from the support surface.

107. The label applicator of claim 83, further comprising a pair of springs positioned under the support surface, the pair of springs biasing the support surface in a downwardly curved position, wherein the pair of springs are positioned to be spaced apart relative to each other at their respective middle sections, and close together relative to each other at their respective end sections.

108. The label applicator of claim 83, further comprising a pair of springs positioned under the support surface, the pair of springs biasing the support surface in a

downwardly curved position, wherein the pair of springs are positioned substantially parallel relative to each other.

109. The label applicator of claim 83, wherein the post assembly includes a spindle, a base portion, and a plurality of ridges coupled to the spindle and positioned in grooves on the spindle, the plurality of ridges each having an edge extending slightly away from the spindle to receive the article being positioned on the spindle, wherein when the edge receives the article, the plurality of ridges are compressed toward the spindle within the grooves as the article is pushed down on the post assembly.

110. The label applicator of claim 83, wherein the post assembly includes a spindle, a base portion, and a plurality of fins coupled to the spindle and positioned in grooves on the spindle, the plurality of fins extending from the spindle to receive the article positioned on the spindle, wherein when the fins receive the article, the plurality of fins are compressed within the grooves of the spindle as the article is pushed down on the post assembly.

111. The label applicator of claim 83, wherein the support surface is an elongate, flexible body having a pair of rigid, molded edges.

112. The label applicator of claim 111, further comprising a pair of springs positioned under the support surface for biasing the support surface in a slightly curved position, wherein the rigid, molded edges form legs for the support surface when in the curved position.

113. The label applicator of claim 112, wherein each of the edges includes a first side, a second side, and a pocket passing through each edge from the first side to the second side, the pocket capable of having a support bar inserted from one of the first or second side to the other side for supporting the legs of the support surface.

114. The label applicator of claim 83, wherein a central area of the support surface includes a pad for supporting the label placed thereon and a plurality of slots for accepting posts extending from the support surface to secure the label to the pad, the plurality of slots being elongated for different positionings of posts within the plurality of slots.

115. The label applicator of claim 83, wherein a central area of the support surface positions the label in a lateral position by a pair of flex ribs positioned at outer, longitudinal edges of the central area, the flex ribs allowing the label to compress longitudinally when an article is pushed down on the post assembly.

116. The label applicator of claim 83, wherein the support surface positions the label in a lateral position by a pair of flex ribs positioned at outer, longitudinal edges, the flex ribs coupled to the support surface at points along elongated sides and include a raised edge opposite the coupling points.

117. The label applicator of claim 116, wherein the pair of flex ribs each include an alignment wall having two sides angled relative to each other along a crease line.

118. The label applicator of claim 83, wherein the label includes a central area, a pair of tabs having a hole in each tab and extending out from the central area such that they are oppositely oriented relative to each other, and a pair of alignment ends extending out from the central area and oppositely oriented relative to each other along a perpendicular axis relative to the pair of tabs.

119. The label applicator of claim 83, further comprising a pair of surface flaps coupled to the support surface and having an opening at substantially parallel positions relative to the support surface, wherein the surface flaps each include a foam portion at the opening, the surface flaps being compressible against the support surface when the article is positioned on the spindle and pushed down against the support surface.

120. The label applicator of claim 83, further comprising a pair of surface flaps coupled to the support surface and having an opening at substantially parallel positions relative to the support surface, wherein the surface flaps each include a plurality of fins between the opening and the support surface, the surface flaps being compressible against the support surface when the article is positioned on the spindle and pushed down against the support surface.

121. The label applicator of claim 83, wherein the applicator is a foam body having a gap therein, such that the foam body compresses down when the article is pushed down against the support surface and the support surface becomes flatter.

122. The label applicator of claim 83, wherein the post assembly includes a ring coupled to a foam sleeve and a cap capable of being screwed into and out of the foam sleeve, the ring for supporting the article placed on the post assembly and capable of moving up and down with the foam sleeve as the post assembly is moved up and down.

123. A label applicator, comprising:

an applicator body having a support surface; and

a post assembly extending up from a central area of the central area, the post assembly including a first centering area for centering a label having a narrow central opening, and a second centering area for centering a label having a wide central opening wider than the narrow central opening, the post assembly extending up through the support surface such that an adhesive face of a label facing up can be positioned over the post assembly;

wherein a flat surface of an article can be pressed and guided against the adhesive face of the positioned label after positioning the article on the post assembly.

124. The label applicator of claim 123 wherein the post assembly includes a ridge for initially supporting the article.

125. The label applicator of claim 123 wherein the second centering area includes structure movable between a lower position and a raised operative position.

126. A method of applying a label to an article, comprising:

providing an applicator having a support surface and a post assembly having a spindle and at least one centering area;

applying a label to the support surface by positioning the label on the spindle;

centering the label on the support surface with the at least one centering area;

and

applying an article to the support surface, the applying including positioning the article on the spindle.

127. The method of claim 126, wherein the at least one centering area allows a label having a narrow central opening to be centered on the support surface.

126. The method of claim 126, further comprising centering the label on the support surface with at least one additional centering area of the post assembly, wherein the at least one additional centering area allows a label having a wide central opening to be centered on the support surface.

129. The method of claim 128, further comprising the applying including after the positioning applying pressure to the article to force the article down on the post assembly and thereby the article contacting with the label on the support surface.

130. The method of claim 129, further comprising removing the article from the spindle after the contacting.

131. A method of applying a label to an article, comprising:

providing an applicator having a support surface and a post assembly having a spindle, a first centering area, and a second centering area;

applying a first label having a narrow central opening to the support surface by positioning the first label on the spindle;

centering the first label on the support surface with the first centering area;

applying an article to the support surface, the applying including positioning the article on the spindle, and applying pressure to the article to force the article down on the post assembly such that the article contacts with the first label on the support surface;

removing the article from the spindle;

applying a second label having a wide central opening to the support surface by positioning the second label on the spindle; and

centering the second label on support surface with the second centering area.

132. The method of claim 131, further comprising applying an additional article to the support surface by positioning the article on the spindle, after applying the second label.

133. The method of claim 132, further comprising applying pressure to the additional article to force the additional article down on the post assembly such that the additional article contacts with the second label on the support surface and adheres thereto.

134. The method of claim 133, further comprising removing the additional article with the adhered second label from the spindle.

135. A label applicator, comprising:

a flexible convex support surface having a central label support area;

a post assembly extending up from the support area; and

with an article positioned over the post assembly and pressed down against an adhesive label on the support area, the support surface is flattened to a substantially flat position against an upward bias.

136. The label applicator of claim 135, wherein the support surface comprises a flexible foam panel.

137. The label applicator of claim 135, wherein the support surface comprises a plate and at least one leaf spring biasing the plate to a convex position.

138. The label applicator of claim 135, wherein the support surface comprises an engineered plastic plate having a natural convex position bias.

139. A label comprising:

a central area;

a pair of tabs having a hole in each tab and extending out from the central area such that they are oppositely oriented relative to each other; and

a pair of alignment ends extending out from the central area and oppositely oriented relative to each other along a perpendicular axis relative to the pair of tabs.

140. The label of claim 139, further comprising adhesive on the central area and the alignment ends being triangularly shaped.